

Application No. 09/963,863

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1. (Previously Presented) Beer dispensing apparatus, the apparatus comprising a flow chamber having a substantially circular cross section, an inlet and an outlet, wherein the apparatus is configured such that in use a vortexial motion is formed in the mass of beer flowing through the apparatus such that gas separates out from the beer within the vortex formed and a head is formed on beer dispensed from the apparatus.

2. (Canceled)

3. (Previously Presented) A beer dispensing apparatus as claimed in claim 1, wherein the inlet extends substantially at a tangent to the circular cross section of the flow chamber.

4. (Previously Presented) A beer dispensing apparatus as claimed in claim 3, wherein the inlet is a conduit which extends substantially perpendicular to the longitudinal axis of the flow chamber.

5. (Previously Presented) A beer dispensing apparatus as claimed in claim 1, a vortex finder

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being provided within the flow chamber aligned in relation to the inlet such that in use, beer flowing into the flow chamber is guided in a circular path between the surface of the vortex finder and the inner face of the flow chamber.

6. (Previously Presented) A beer dispensing apparatus as claimed in claim 5, wherein the vortex finder comprises a portion in the form of a cylinder.

7. (Previously Presented) A beer dispensing apparatus as claimed in claim 6, wherein the vortex finder further comprises a conic or frusto-conic part provided at the downstream end thereof.

8. (Previously Presented) A beer dispensing apparatus as claimed in claim 6, wherein the vortex finder is provided integrally with a valve head.

9. (Currently Amended) A beer dispensing apparatus as claimed in claim 1, the apparatus being arranged to be oriented substantially vertically in use such that the beer beverage flows helically downwardly through the apparatus under the action of gravity.

10. (Previously Presented) A beer dispensing apparatus as claimed in claim 1, wherein the circular cross section of at least a part of the flow chamber decreases in diameter along its axis in the downstream flow direction.

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11. (Previously Presented) A beer dispensing apparatus as claimed in claim 1, wherein a vortex breaker is provided in the apparatus to smooth the flow of beer leaving the apparatus.

12. (Previously Presented) A beer dispensing apparatus as claimed in claim 1, the flow chamber comprising a hollow cylindrical upstream portion defining a vortex finding chamber and a conical or frusto-conical downstream portion depending therefrom.

13. (Currently Amended) A beer dispensing apparatus as claimed in claim 1, further comprising means for opening and closing the flow of beer beverage into the apparatus.

14. (Canceled)

15. (Previously Presented) A beer dispensing apparatus as claimed in claim 8, further comprising an outlet conduit leading from the flow chamber, wherein the inlet is arranged in relation to the flow chamber such that beer flowing into the apparatus in use is directed to flow around the valve head substantially in one direction.

16. (Currently Amended) A beer dispensing apparatus as claimed in claim 15, wherein the outlet conduit depends from the flow directing chamber and is arranged such that the flow of beer around the valve head member establishes a vortex flow within the outlet conduit.

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17. (Currently Amended) A beer dispensing apparatus as claimed in claim 15, wherein a vortex breaker is provided in the outlet conduit to smooth the flow of beer ~~beverage~~ leaving the apparatus.

18. (Previously Presented) A beer dispensing apparatus as claimed in claim 15, wherein the valve head is axially movable within the flow chamber in such a way that the valve head opens and closes the inlet conduit.

19. (Currently Amended) A beer dispensing apparatus as claimed in claim 18, wherein the valve head is provided with a vortex finding portion having a diameter significantly less than that of the flow chamber and a valve portion having a diameter substantially the same as that of the flow directing chamber, and the valve portion is operable to open and close the inlet conduit.

20-21 (Canceled)

22. (Previously Presented) A beer dispensing apparatus as claimed in claim 1, the apparatus being made of stainless steel.

23. (Previously Presented) A beer dispensing apparatus as claimed in claim 1, the apparatus being made of glass.

24. (Previously Presented) A beer dispensing apparatus as claimed in claim 1, the apparatus being made of plastics.

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25. (Previously Presented) A beer dispensing apparatus as claimed in claim 24, the apparatus being made of Perspex.

27. (Previously Presented) A beer dispensing apparatus as claimed in claim 26, wherein the conic or frusto-conic part thereof has a taper angle of less than 15° or preferably 10° .

28. (Currently Amended) A beer dispensing apparatus as claimed in claim 27, wherein the conic or frusto-conic part thereof has a taper angle of between ~~less than~~ 7° and 3° , preferably between 7° and 5° .

29. (Previously Presented) A beer dispensing apparatus as claimed in claim 28, wherein the conic or frusto-conic part thereof has a taper angle of about 5° .

26. (Previously Presented) A beer dispensing apparatus as claimed in claim 7, wherein the conic or frusto-conic part thereof has a taper angle of up to 30° .

30. (Previously Presented) A beer dispensing apparatus as claimed in claim 7, wherein the conic or frusto-conic part thereof has a height of between 100 mm and 30 mm.

31. (Previously Presented) A beer dispensing apparatus as claimed in claim 30, wherein the conic or frusto-conic part thereof has a height of about 50 mm.

32. (Canceled)

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33. (Previously Presented) A method of dispensing beer comprising forming a vortexial flow in the mass of beer as it is dispensed using the apparatus as claimed in claim 1.

34. (Previously Presented) A beer dispensing apparatus as claimed in claim 10, wherein the vortex breaker comprises a blade extending diametrically across a downstream portion of the flow chamber.

35. (Previously Presented) Beer dispensing apparatus, the apparatus comprising a flow chamber having a substantially circular cross section, an inlet and an outlet, wherein the inlet extends substantially at a tangent to the circular cross section of the flow chamber, and the apparatus is configured such that in use a vortexial motion is formed in the mass of beer flowing through the apparatus such that gas separates out from the beer within the vortex formed and a head is formed on beer dispensed from the apparatus.

36. (Previously Presented) Beer dispensing apparatus, the apparatus comprising a flow chamber having a substantially circular cross section, an inlet, an outlet and a vortex finder comprising a portion in the form of a cylinder, wherein the vortex finder is provided integrally with a valve head and is provided within the flow chamber aligned in relation to the inlet such that in use, beer flowing into the flow chamber is guided in a circular path between the surface of the vortex finder and the inner face of the flow chamber.

37. (Previously Presented) Beer dispensing apparatus, the apparatus comprising a flow chamber having a substantially circular cross section, an inlet and an outlet, wherein the circular cross section of the flow chamber decreases in diameter along its axis from the inlet to the outlet,

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and wherein the apparatus is configured such that in use a vortexial motion is formed in the mass of beer flowing through the apparatus such that gas separates out from the beer within the vortex formed and a head is formed on beer dispensed from the apparatus.

38. (Previously Presented) Beer dispensing apparatus, the apparatus comprising a flow chamber having a substantially circular cross section, an inlet, an outlet, and a vortex breaker comprising a blade extending diametrically across a downstream portion of the flow chamber, wherein the apparatus is configured such that in use a vortexial motion is formed in the mass of beer flowing through the apparatus such that gas separates out from the beer within the vortex formed and a head is formed on beer dispensed from the apparatus.